Draft V2
Proposed Rule [FR 67, 42400, June 21, 2002]

WOOD BUILDING PRODUCTS (SURFACE COATING) NESHAP SUMMARY OF PROPOSED RULE

July 2002

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This document is intended to provide you a summary of requirements for the Wood Building Products (Surface Coating) maximum achievable control technology (MACT) proposal based on the proposed version of the rule. This summary is intended for informational purposes, does not constitute final agency action, and cannot be relied upon to create any rights enforceable by any party.

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REGULATORY OVERVIEW

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CFR Location:	40 CFR 63 subpart QQQQ		
Regulatory Activity:	Proposal Promulgation	June 21, 2002 **Date**	[FR 67, 42400] **[FR notice]**
Docket Number:	A-97-52		
Compliance and Reporting:	See **Table 3** for information on compliance dates, performance testing and reporting.		

WHAT IS THE BACKGROUND OF THIS REGULATION?

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This action proposes to add subpart QQQQ to 40 CFR part 63, pursuant to section 112 of the CAA. Section 112 of the CAA requires the U. S. Environmental Protection Agency (EPA) to list categories of major and area sources of Hazardous Air Pollutants (HAP) and to establish National Emission Standards for Hazardous Air Pollutants (NESHAP) for the listed source categories. The Wood Building Products (WBP) source category was originally listed as the "flatwood paneling" source category, but the name of the source category was changed to "wood building products" to more accurately reflect the types of products and manufacturing facilities in the source category.

APPLICABILITY: AM I SUBJECT TO SUBPART QQQQ?

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[§63.4681]

The proposed NESHAP applies to any new or existing facility that has surface coating operations involving wood building products that uses at least 4,170 liters (1,100 gallons) of coatings per year and is a major source, is located at a major source, or is part of a major source of HAP emissions. Facilities that manufacture or apply surface coatings to prefabricated homes and mobile/modular homes are not subject to the proposed NESHAP requirements.

WHAT IS A WOOD BUILDING PRODUCT?

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[§63.4681]

A wood building product is defined as any finished or laminated wood product that contains more than 50 percent by weight wood or wood fibers and is used in the construction, either interior or exterior, of a residential, commercial, or institutional building. (Does not include wood substrates, wood furniture, or wood furniture components.)

Figure 1 is a generalized process flow diagram for wood building products surface coating facilities. Since products have different surface coating requirements, not all facilities will have all steps represented in Figure 1.

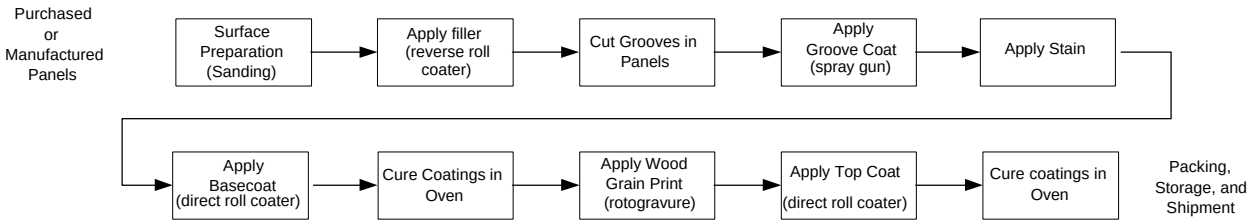

Figure 1. General Process Flow Diagram

WHAT IS A MAJOR SOURCE OF HAP EMISSIONS?

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A major source of HAP emissions is a facility with potential to emit at least 9.07 Mg/yr (10 tons/yr) of any single HAP or 22.68 Mg/yr (25 tons/yr) of any combination of HAP as defined in the NESHAP General Provisions (40 CFR part 63) pursuant to section 112 of the Clean Air Act (CAA).

HOW DO I DETERMINE MY POTENTIAL TO EMIT?

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[Adapted from *Potential to Emit: A Guide for Small Businesses*, EPA-456/B-98-003, October 1998]

Potential to emit is determined by your maximum capacity. When calculating the potential to emit, include all HAP emission sources located within the contiguous area and under common control, even if the sources are unrelated to the surface coating of wood building products. To determine the potential to emit, follow these steps.

1. Identify all sources of emissions.

2. Identify all HAPs that your business emits.

3. Select a method to use to determine your HAP emissions. (See Table 1)

4. For each HAP, determine the maximum amount that each production process or piece of equipment in your business can emit in one year.

5. Add the maximum emissions from all production processes/equipment.

TABLE 1. METHODS TO DETERMINE YOUR HAP EMISSIONS [back to top]

Method	Instructions
Test data	Conduct onsite measurements of HAP emissions.
Material-balance calculations	Estimate HAP emissions by comparing types and quantities of inputs to types and quantities of outputs.
Source-specific models	Formulas for HAP emissions using source-specific parameters such as types and quantities of inputs, operating hours, and physical characteristics of equipment.
Emission factors	Uses average HAP emission rates (provided by EPA, other agencies, or equipment vendors), multiplied by time or frequency of operation, to obtain emissions. HAP emission factors specific to your business can be used but should be approved by the state air pollution control agency.

WHAT IS AN AFFECTED SOURCE? [back to top]
[§63.4681]

The regulation applies to each new, reconstructed, and existing affected source. The affected source is the collection of all of the items listed below that are part of the wood building products surface coating facility:

(1) All coating operations;

(2) All storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

The regulation does *not* apply to surface coating operations at research or laboratory facilities; janitorial, building, and facility maintenance operations; or coating applications using hand-held nonrefillable aerosol containers.

The affected source also does not include processes that overlap with other NESHAP regulations including:

(1) Those covered by the plywood and composite wood product manufacturing NESHAP, future subpart DDDD to 40 CFR part 63;

(2) Those covered by the wood furniture manufacturing NESHAP, subpart JJ to 40 CFR part 63; and

(3) Operations that use a retort or other pressure vessel for wood treatment or fire retardant applications.

WHAT ARE THE PROPOSED SUBCATEGORIES? [back to top]
[§63.4681]

(1) *Doors and windows*. Any facility that applies a coating to doors and windows, and door and window components, such as millwork, moulding, or trim.

(2) *Flooring*. Any facility that applies a coating or laminate to solid wood flooring, engineered wood flooring, or wood laminate flooring.

(3) *Interior wall paneling and tileboard*. Any facility that applies a coating to interior wall paneling products. Tileboard is a premium interior wall paneling product.

(4) *Other interior panels*. Any facility that applies a coating to panels that are sold for uses other than interior wall paneling, such as sheathing, pegboard, and ceiling tiles.

(5) *Exterior siding, doorskins, and miscellaneous*. Any facility that applies a coating to lap or panel siding, trimboard, doorskins, and other miscellaneous wood building products, including, but not limited to, shingles, awnings, shutters, and laminated veneer lumber.

WHAT ARE THE EMISSION LIMITS? [back to top]
[§63.4690]

The emission limits for existing sources cannot be less stringent than the average emission limit achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources). Emission limits for new or reconstructed sources are established by the best-performing facility in each of the proposed subcategories.

TABLE 2. EMISSION LIMITS FOR AFFECTED SOURCES

If the affected source applies coating to products in the following subcategory...	**Then, for existing sources, the organic HAP emission limit in kg HAP/L solids (lb HAP/gal solids) is:**	**Or, for new or reconstructed sources, the organic HAP emission limit in kg HAP/L solids (lb HAP/gal solids) is:**
Doors and windows	0.17 (1.45)	0.06 (0.48).
Flooring	0.09 (0.78)	0.00 (0.00).
Interior wall paneling or tileboard	0.18 (1.53)	0.00 (0.04).
Other interior panels	0.00 (0.01)	0.00 (0.00).
Exterior siding, doorskins, and miscellaneous	0.01 (0.06)	0.00 (0.00).

WHAT ARE THE OPTIONS FOR MEETING THE EMISSION LIMITS? [back to top]
[§63.4691]

To meet the applicable emission limit(s), one of the three compliance options listed in paragraphs (1) through (3) below must be used for each affected source.

(1) *Compliant material option*. Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit and that each thinner and each cleaning material used contains no organic HAP.

(2) *Emission rate without add-on controls option*. Demonstrate that, based on the coatings, thinners, and cleaning materials used in the coating operation(s), the rolling 12-month average organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limits.

(3) *Emission rate with add-on controls option*. Demonstrate that, based on the emission capture and add-on control efficiencies achieved and the coatings, thinners, and cleaning materials used in the coating operation(s), the rolling 12-month average organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limits. You must also demonstrate that all capture equipment and control devices for the coating operation(s) meet specified operating limits. Facilities utilizing add-on controls must also meet work practice standards.

FOR EACH OPTION, WHAT AM I REQUIRED TO DO? [back to top]

If you **do not** use capture equipment and control devices, Subpart QQQQ requires all of the following:

- Emission Limits
- Recordkeeping, and Reporting
- You will also be required to comply with 40 CFR 63, Subpart A, General Provisions.

If you use capture equipment and control devices, Subpart QQQQ requires all of the following:
- Emission Limits
- Operating Limits
- Work Practice Standards
- Monitoring
- Recordkeeping, and Reporting
- You will also be required to comply with 40 CFR 63, Subpart A, General Provisions.

HOW DO I CALCULATE MY EMISSION RATE? [back to top]
[§§63.4741, 63.4751, and 63.4761]

Using the collected coating, thinner, and cleaning material data, a rolling 12-month average organic HAP emission rate (total mass of organic HAP emitted divided by total volume of coating solids used) is calculated on a monthly basis. Data collected from the current month is combined with the previous 11 months' data to calculate the rolling 12-month average emission rate. The rolling 12-month emission rate is then documented and used to demonstrate compliance with the applicable HAP emission limit. The emission rate must be equal to or less than the established emission limit listed in Table 2.

WHAT ARE OPERATING LIMITS AND HOW DO I MEET THEM? [back to top]
[§63.4692]

The operating limits are the site-specific parameter limits you determine for your capture equipment and control device(s) during the performance test. Your operating limits must be monitored by a continuous parameter monitoring system (CPMS).

WHAT WORK PRACTICE STANDARDS MUST I MEET? [back to top]
[§63.4693]

If you use capture equipment and control device(s), you must develop, maintain, and operate a work practice plan. The plan should include actions to:

- Cover mixing and storage vessels containing HAP except when adding or removing contents
- Use closed containers to collect and store HAP-containing waste
- Minimize emissions through careful handling and transfer of HAP-containing coatings, thinners, cleaning materials, and wastes

WHAT MONITORING IS REQUIRED FOR MY CAPTURE EQUIPMENT AND ADD-ON CONTROL DEVICES? [back to top]
[§63.4768]

Continuous parameter monitoring is required for all capture equipment and add-on control devices.

Capture system bypass lines: Install one of the following devices to ensure the capture equipment is not being bypassed:

- Flow control position indicator
- Car-seal or lock-and-key valve closures
- Valve closure continuous monitoring
- Automatic shutdown system

Carbon adsorbers: Monitor total regeneration desorbing gas mass flow and carbon bed temperature.

Catalytic and thermal oxidizers: Monitor gas temperature in the firebox of the thermal oxidizer or in the gas stream immediately before the catalyst bed. A typical thermal oxidizer and catalytic oxidizer are shown in Figure 2 and Figure 3, respectively.

Condensers: Monitor outlet gas temperature.

Concentrator: Monitor temperature in desorption gas stream and monitor pressure drop continuously.

Emission capture systems: Monitor air flow and pressure drop.

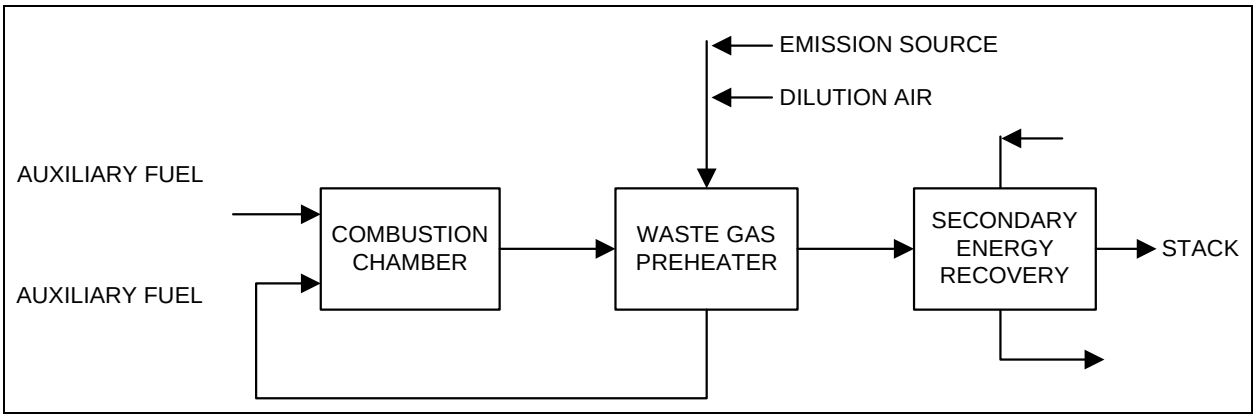


Figure 2. A typical thermal oxidizer [back to top]

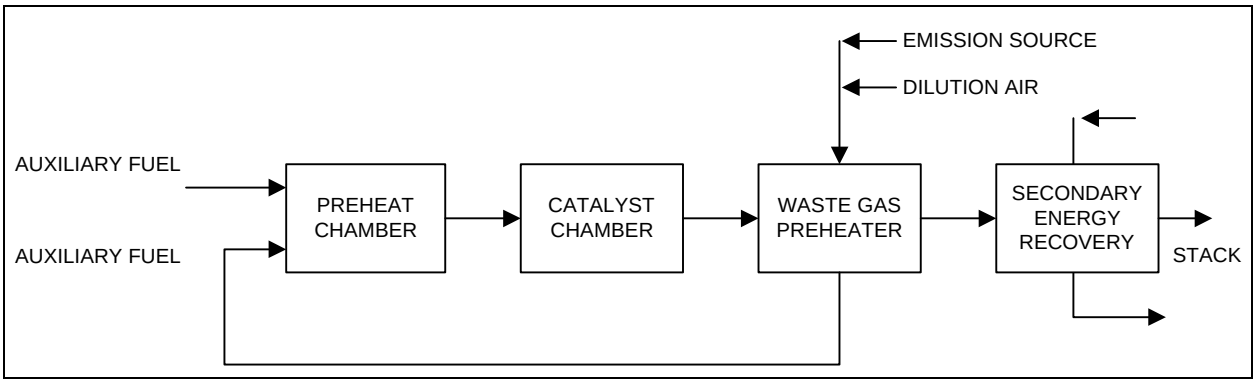


Figure 3. A typical catalytic incinerator [back to top]

WHEN IS THE COMPLIANCE DATE FOR SUBPART QQQQ? [back to top]
[§63.4683]

For an *existing affected source*, the compliance date is the date 3 years after the effective date of the final rule. For a *new or reconstructed affected source*, the compliance date is the date of initial startup of your affected source or the effective date of the final rule, whichever is later.

The *effective date* is the date on which the final rule is published in the Federal Register.

The compliance requirements for new, reconstructed, and existing sources are summarized in Table 3.

The reporting timeline for existing sources, shown relative to the effective date, is shown in Figure 5.

WHEN IS THE INITIAL COMPLIANCE PERIOD? [back to top]
[§§63.4740, 63.4750, and 63.4760]

The initial compliance period is the total 12-month period beginning on the compliance date. Since the standard (e.g., emission limits) is based on a rolling 12-month average emission rate, sources are given a 12-month period to change their surface coating operations and monitor their monthly HAP emission rates to ensure that their initial rolling 12-month emission rate complies with the applicable emission limit(s).

If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months.

HOW DO I DEMONSTRATE INITIAL COMPLIANCE WITH THE STANDARD? [back to top]

For the Compliant Material Option (Option 1): [§63.4741]
Determine the mass of organic HAP in all coatings, thinners, and cleaning materials used and the volume fraction of coating solids used in all coatings. Demonstrate that the organic HAP content of each coating used is less than or equal to the applicable emission limit and that each thinner and cleaning material used contains no organic HAP.

For the Emission Rate Without Add-On Controls Option (Option 2): [§63.4751]
Determine the mass of organic HAP in all coatings, thinners, and cleaning materials used and the volume fraction of coating solids used in all coatings. Demonstrate that the rolling 12-month average organic HAP emission rate from the combination of all coating materials used is less than or equal to the applicable emission limit.

For the Emission Rate With Add-On Controls Option (Option 3): [§63.4761]
Determine the mass of organic HAP in all coatings, thinners, and cleaning materials used and the volume fraction of coating solids used in all coatings. Then determine your operating limits, using the performance test, that will achieve capture and control efficiencies that will reduce your organic HAP rate so that it is less than or equal to the applicable emission limit. Operating limits must be continuously monitored by a continuous parameter monitoring system. You must also develop and operate a Work Practice Plan and a Startup, Shutdown, and Malfunction Plan (SSMP). Demonstrate that the rolling 12-month average organic HAP emission rate from the combination of all coating materials used is less than or equal to the applicable emission limit.

HOW DO I DEMONSTRATE CONTINOUS COMPLIANCE WITH THE STANDARD? [back to top]

For the Compliant Material Option (Option 1): [§63.4742]
To demonstrate continuous compliance, the organic HAP content in each coating you use during the compliance period must be less than or equal to the applicable emission limit and all thinners and cleaning materials you use during the compliance period must contain no organic HAP.

For the Emission Rate Without Add-On Controls Option (Option 2): [§63.4752]
To demonstrate continuous compliance, the rolling 12-month average organic HAP emission rate determined from all coatings, thinners, and cleaning materials you use during the compliance period must be less than or equal to the applicable emission limit.

For the Emission Rate With Add-On Controls Option (Option 3): [§63.4763]
To demonstrate continuous compliance, the rolling 12-month average organic HAP emission rate determined from all coatings, thinners, and cleaning materials you use during the compliance period (including the capture and control efficiencies) must be less than or equal to the applicable emission limit. You must also maintain continuous achievement of operating limits, and operate according to your work practice plan and startup, shutdown, and malfunction plan.

WHAT ARE THE NOTIFICATION, RECORDKEEPING, AND REPORTING REQUIREMENTS?
[§§63.4710, 63.4720, and 63.4730] [back to top]

These requirements are also summarized in Table 3.

Initial Notification: The initial notification states that your facility is subject to the Wood Building Products standards. You must submit this within 120 days after the effective date (i.e., the date of startup or the date the promulgated rule is published in the Federal Register, whichever is later).

Notification of Intent to Conduct a Performance Test: If your facility is required to conduct performance tests (e.g., those with add-on control equipment), you must submit a notification of intent to conduct a performance test 60 days prior to the test.

Performance Test Report: If your facility is required to conduct performance tests (e.g., those with add-on control equipment), you must submit a performance test report within 60 days after completing the performance test. The performance test is required no later than 180 days after the applicable compliance date for new or reconstructed sources, and no later than the compliance date for existing affected sources.

Notification of Compliance Status: If you own or operate an affected source, you must submit a Notification of Compliance Status (NCS) within 30 days after initial compliance demonstrations. The NCS certifies that your affected source has complied with the standards, identifies the option(s) you used to demonstrate initial compliance, summarizes the data and calculations supporting the compliance demonstration, and describes how you will determine continuous compliance.

Semiannual Compliance Reports: After the initial compliance period each affected source must submit semiannual compliance reports.

Startup, Shutdown, or Malfunction Reports: In addition, a startup, shutdown, and malfunction report must be submitted immediately if there were a startup, shutdown, or malfunction of the control device during the reporting period that is not consistent with the startup, shutdown, and malfunction plan.

Records: Facilities are required to keep records of reported information and all other information necessary to document compliance with the proposed rule for 5 years. As required under the General Provisions, records for the 2 most recent years must be kept on-site; the other 3 years may be kept off-site. Records pertaining to the design and operation of the control and monitoring equipment must be kept for the life of the equipment. Depending on the compliance option that you choose, there may be additional recordkeeping requirements, as described in the proposed rule.

HOW MANY FACILITIES WILL BE AFFECTED, AND WHAT ARE THE ANTICIPATED EMISSIONS REDUCTIONS AND COSTS? [back to top]

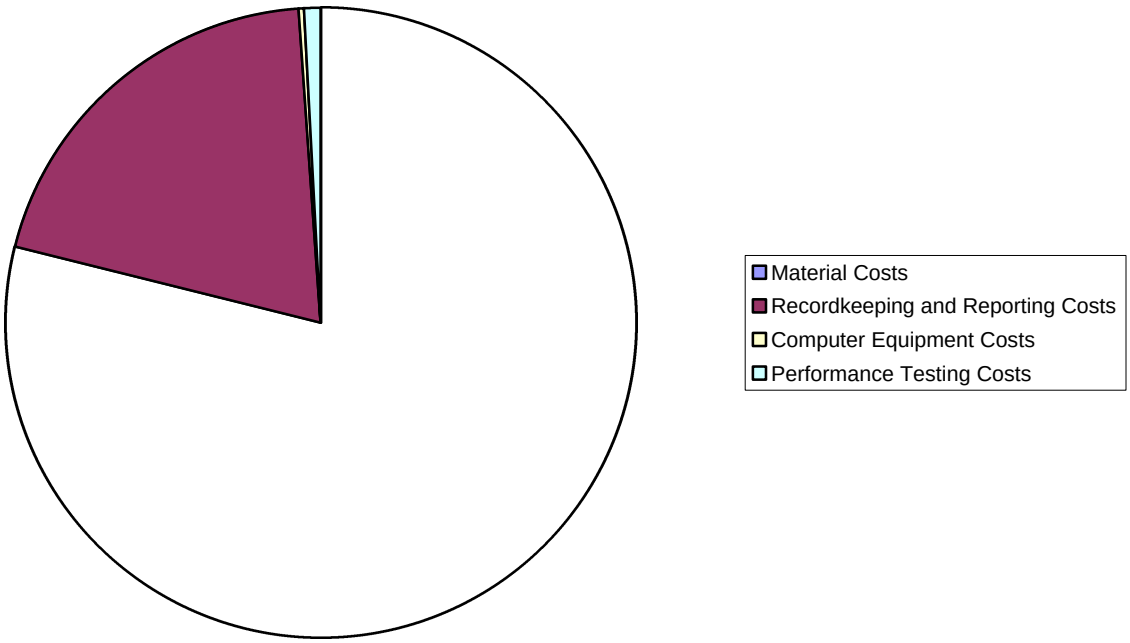
The EPA has estimated that there are approximately 205 major source facilities in the wood building products (surface coating) source category and has identified these facilities as major sources of HAP emissions such as xylene, toluene, ethyl benzene, ethylene glycol butyl ether (EGBE), glycol ethers (not including EGBE), methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), methanol, styrene, and formaldehyde.

As proposed, this standard is estimated to reduce HAP emissions by 3,500 tons per year (tpy) (3,200 megagrams per year (Mg/yr)) or by 61 percent.

The total annual costs for the approximate 205 existing major sources are estimated at $27.3 million. According to estimates, recordkeeping and reporting costs will contribute $5.5 million to the overall cost of this NESHAP, material costs will contribute $21.6 million, and performance testing will contribute $246,000.

The economic impacts of the proposed standards are expected to be minimal, with price increases for affected wood building products surface coating facilities expected to be only 0.04 percent.

Figure 4. Costs to Implement Subpart QQQQ



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WHAT IF I HAVE QUESTIONS? [back to top]

Mr. Vinson Hellwig is the EPA project leader and is part of the Coatings and Consumer Products Group of EPA's Office of Air Quality Planning and Standards, Emission Standards Division. His office is located in the Research Triangle Park in North Carolina. He can be contacted via e-mail at: hellwig.vinson@epa.gov.

WILL IMPLEMENTATION MATERIALS BE AVAILABLE FOR THIS RULE? [back to top]

Implementation materials (i.e. brochures, Q&A, example report forms, etc.) will be developed for this rule. You can keep informed of the implementation activities planned by EPA's Office of Air Quality Planning and Standards (OAQPS) by periodically checking the rule's implementation Plan. For Wood Building Products, that address is www.epa.gov/ttn/atw/wbldg/wbldgplan.html

For additional information on implementation tool development activities for this rule or other surface coating rules, you may contact Ingrid Ward of the Program Implementation and Review Group (PIRG). Her office is also located in Research Triangle Park, North Carolina. She can be contacted via e-mail at ward.ingrid@epa.gov.

TABLE 3—COMPLIANCE TIMELINE FOR SUBPART QQQQ [back to top]

Note: Timeline is organized by "due" date.

Requirement…	If you are an **existing source**, then requirement is due on…	If you are a **new or reconstructed source**, then requirement is due on…
Effective Date of subpart QQQQ	**[date]** Which is the date final rule published in FR	**[date]** Which is the date final rule published in FR
Initial Notification [§63.4710(b), 63.9(b)]	**[date]** Submit 120 days after effective date	**[date]** If initial startup is before the effective date, submit within 120 days after effective date; if initial startup is after effective date, submit within 120 days after startup[1]
Notification of Special Compliance Requirements [§63.9(d), §63.6(b)]	NA Applies only to new sources subject to §63.6(b)(3)-(b)(4)	**[date]** Submit with Initial Notification required under §63.9(b)
Compliance Extension Request [§63.9(c), §63.6(i)]	**[date]** Submit in accordance with §63.9(c) – submit 12 months prior to compliance date	NA Applicable only to existing sources
Notification of Intent to Conduct A Performance Test [§63.9(b)(2)]	**[date]** Submit in accordance with §63.7 and §63.9(e) – 60 days prior to test	**[date]** Submit in accordance with §63.7 and §63.9(e) – 60 days prior to test
Performance Test [§63.7(a)(2), §63.4760] Applies only if you use a control device	**[date]** Complete prior to compliance date	**[date]** Complete as required in §63.7(a)(2) – within 180 days after initial startup
Compliance Date [§63.4683]	**[date]** Which is 3 years after effective date	Upon startup or by effective date, whichever is later
Notification of Compliance Status (NCS) [§63.4710(c)]	**[date]** Submit 1 year and 30 days after the Compliance Date (30 days after Initial Compliance Period ends)	**[date]** Submit 1 year and 30 days after your Compliance date (30 days after Initial Compliance Period ends)

Requirement…	If you are an **existing source**, then requirement is due on…	If you are a **new or reconstructed source**, then requirement is due on…
Performance Test Reports [§63.4720(b)] Applies only if you use a control device	**[date]** Submit in accordance with §63.10(d)(2)- within 60 days after the performance test	**[date]** Submit in accordance with §63.10(d)(2)- within 60 days after the performance test
First Semi-annual Compliance Report [§63.4720(a)] Note: For the purposes of the example, assume the final rule will be published on 9/1/02 and the compliance date is 9/1/04	Submit by January 31, 2006 (est) The initial semi-annual report covers the period between 12/31/04 to 12/31/05	Submit by July 31 or January 31, whichever date is after the end of the calendar half (e.g., Jan-June and July-Dec) that immediately follows your Notification of Compliance Status.
Subsequent Semi-annual Compliance Reports [§63.4720(a)]	Submit by July 31 and January 31 of every year.	Submit subsequent reports by July 31 or January 31, whichever date is the first date after the end of the semiannual reporting period.
Start-up, Shutdown, and Malfunction Reports (SSMR) [§63.4700(d)] Applies only if you use a control device	Submit in accordance with §63.10(d)(5), include in your semi-annual compliance report. If your actions were not consistent with the SSMR then you must submit an immediate SSMR	Submit in accordance with §63.10(d)(5), include in your semi-annual compliance report. If your actions were not consistent with the SSMR then you must submit an immediate SSMR

[1] note: does proposed §63.9(b) have date for new sources w/ startup after effective date (e.g. 63.9(b)(3) struck?)

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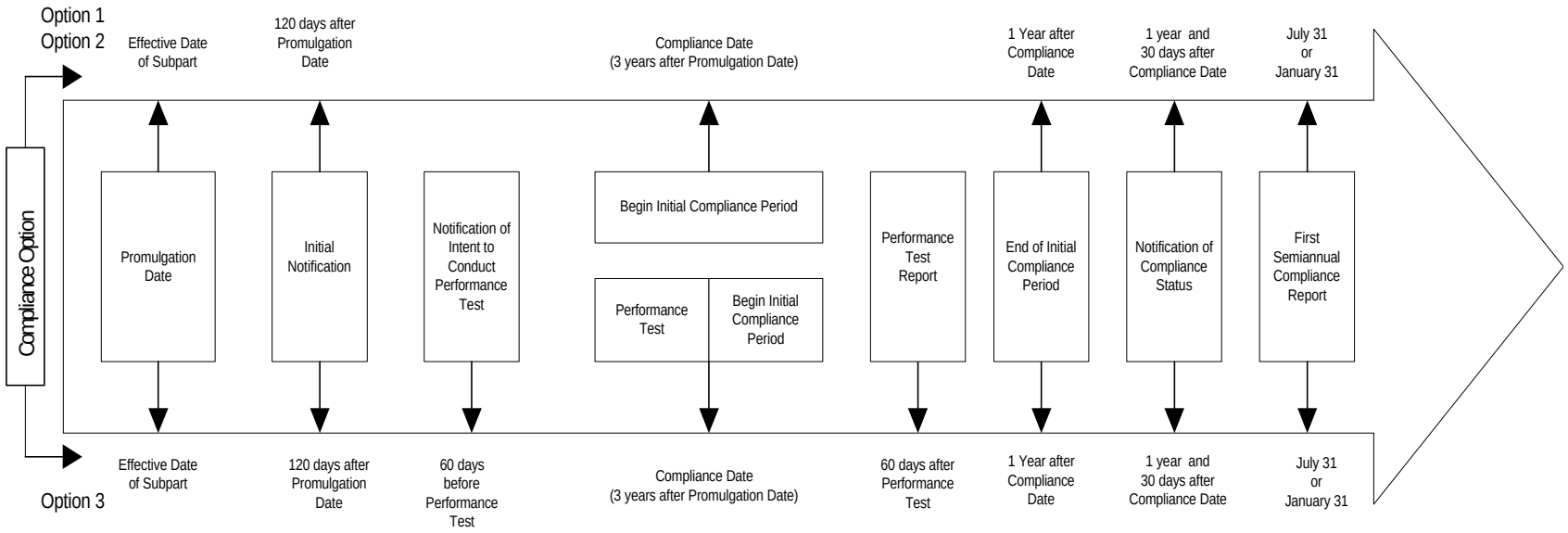

Figure 5. Reporting Timeline For Existing Sources

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